

Peace on Earth...

retirements



Levi L. Bailey
Plant & Equipment,
ORNL
24 years service



Martha C. Bentley
Health Physics, ORNL
21 years service



James O. Castleman Jr.
Plant & Equipment,
ORNL
26 years service



Robert R. Coveyou
Computer Sciences,
ORNL
33 years service



James I. Fine
Laboratory Protection,
ORNL
32 years service



Edwin Hensley
General Engineering,
ORNL
29 years service



Margaret W. Herring
Information, ORNL
32 years service



Benjamin L. Houser
Health Physics, ORNL
25 years service



Lester E. Lebo
Biology, ORNL
32 years service



Sue F. Lowe
Information, ORNL
33 years service



Frederick Nelson
Chemistry, ORNL
31 years service



Frances Pleasonton
Physics, ORNL
29 years service



Oscar Sisman
Energy, ORNL
30 years service



Otis J. Smith
Inspection Engineering,
ORNL
24 years service



James A. Williams
Plant & Equipment,
ORNL
30 years service



Howard R. Floyd
H-1 Foundry, Y-12
32 years service



Ules M. Oxford
Graphite Shop, Y-12
26 years service



Clyde L. Hill
General Shop Job
Liaison, Y-12
26 years service



Mark D. Griffiths
Dimensional Inspection,
Y-12
30 years service



Thelma Bradshaw
Special Services,
Y-12
32 years service



Jeanette A. McCown
Chemical Services,
Y-12
31 years service



Forrest E. Clark
Material Engineering
Development, Y-12
32 years service



Roy B. Dunlap
Building, Grounds
Y-12
25 years service



Robert L. Martin
Buildings, Grounds
Y-12
32 years service



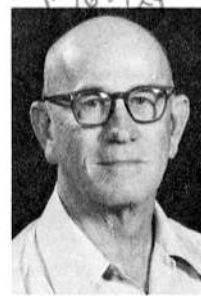
Jack Spears
Buildings, Grounds,
Y-12
26 years service



Oscar Smith
Buildings, Grounds,
Y-12
29 years service



Coy H. Harrell
Process Maintenance,
Y-12
26 years service



Clarence G. Hyde
Buildings, Grounds,
Y-12
23 years service



William W. Watson
Process Maintenance,
Y-12
33 years service



Ernest L. Bentley
Y-12 Safety
29 years service



Marvin F. Schwenn
Purchasing
32 years service



Wynn O. Watson
Plant Protection, PGDP
34 years service

(Please
turn to
page 4)

Paducah United Way drive over the top

Dan H. Stitt, United Way campaign chairman at the Paducah Plant, has announced the successful conclusion for the drive there with final figures in the 1976 drive. Paducah Plant employees gave \$67,350 to local area United Way agencies, an 18 percent increase over last year's record giving. This was a \$10,177 increase over the past year.

Three divisions at the plant pledged participation in the drive, as Technical Services, Plant Managers and the Technical Staff were 100 percent in their efforts.

Stitt paid special recognition to Howard I. Huff and Herbert Handley in their efforts in obtaining a 99 percent participation from the 1,318 employees in the Fabrication and Maintenance Division, which covers almost half the plant's population.

anniversaries

ORGDP

25 YEARS

Bill S. Denton, Cedric S. Patton, Elmer C. Hurst and Clyde B. Smith

GENERAL STAFF

25 YEARS

Fred E. Richardson.

Y-12 PLANT

30 YEARS

Noah J. Price, Garage and Heavy Equipment.

25 YEARS

Arthur Cleveland, James F. Four-

man, Lee A. Johnson, Francis W. Henson, Jimmy W. Rolston, Brinkley A. Price, Bessie P. Hudson, Leon A. Meade, John D. Morris, Thomas E. Ford, Herman A. Fischer Jr., Albert G. Martin Jr. and Carl C. Sharp.

20 YEARS

Gilbert Gallaher, John E. Sergeant, Harve C. Norman and Reford C. Hauther.

PADUCAH

25 YEARS

Howard L. Gibson, Allen L. Elrod, Jimmy M. Webber and Joseph F. Foster.

ORNL

30 YEARS

Edward Brodie, Plant and Equipment Division; Thomas H. Burnett, Health Physics Division; Charles A. Clark, Analytical Chemistry Division; Truman H. Freeman, Employee Relations Division; and Clair J. Collins, Chemistry Division.

25 YEARS

James E. Strain, Hershel G. Davis, Grover C. Robinson Jr., Phillip S. Baker, James F. Talley, Byon M. Lamb and James E. Corum.

20 YEARS

Kenneth K. Klindt, Noble H. Rouse, Louie M. Pyatt and Charles L. Ottinger.

Nuclear Division News



A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 7/No. 26/December 23, 1976

Page 3

In this issue ...

Union Carbide is assisting in the establishment of a Junior Achievement chapter in Oak Ridge, giving our youth an opportunity to learn the ways of industry and finance. Story on page 7.

Other features:

- Y-12 facility recovers nitrate waste. page 4
- Martin named head of Development page 5
- Dr. Lincoln. page 7
- Ration cards 'return' . . . page 8

Yaggi named manager for four Y-12 divisions



Jack Yaggi

The appointment of Jack Yaggi to the newly established position of General Plant Services Manager for the Y-12 Plant has been announced by Jack M. Case, Plant Manager.

In his new position, Yaggi will have overall responsibility for the Maintenance Division, Security, Plant Protection and Utilities Division, and the Materials and Services Division.

A native of Texas, Yaggi spent his early years in Old Hickory, Tenn. He was graduated from the Georgia Institute of Technology in 1951 with a bachelor's degree in chemical engineering, following which he joined the E. I. duPont Company in Niagara

Falls, N.Y.

Three years later he joined the staff of Union Carbide Corporation as a production supervisor at the Oak Ridge Y-12 Plant and has been with Union Carbide since that time.

Over the years, Yaggi assumed positions of increased responsibility, and in 1968 was appointed Development Superintendent with responsibilities at the Y-12 Plant. Yaggi has been recognized for his specialized capabilities in such areas as chemical engineering, chemical operations, pilot plant design and operation, high pressure technology, hydraulics, plastics and rubber, metallurgy and welding engineering.

He was instrumental in Y-12's entry into the refractory metals field and the successful scale-up of tungsten and tungsten alloy production operations. In addition, he is the author or co-author of more than 15 technical reports dealing with work at the Y-12 Plant.

Among Yaggi's memberships are the American Welding Society, American Institute of Chemical Engineers, American Society for Metals and American Chemical Society.

He and his wife, Shirley, live at 345 Louisiana Ave., Oak Ridge. They have two children, Douglas and Jennifer.

question box

If you have questions on company policy, write the Editor, Nuclear Division News (or telephone your question in, either to the editor, or to your plant contact). Space limitations may require some editing, but pertinent subject matter will not be omitted. Your name will not be used, and you will be given a personal answer if you so desire.

United Fund giving

QUESTION: I would like some clarification concerning United Fund contributions. I feel that any contribution, whether it be Savings Bonds or United Fund, should be what the employee feels he can afford to give, not what the solicitor wants the division quota to be. In my case, not only have I been pressured to give my "fair share," but the solicitor even talked to my supervisor to see that I gave my "fair share." I have been humiliated by his telling others I have not given my "fair share," and this I resent—being told how to spend my salary. What is the Company's posture on using this type of pressure in soliciting for the United Fund?

ANSWER: We agree with you. It's your money. You earned it and you should decide how to spend it. This same type question was answered in the January 5, 1974, issue of **Nuclear Division News** as follows:

"Union Carbide believes in the United Way since it is the best way for all of us to support the numerous worthwhile agencies it represents; therefore, we support it and encourage our employees to support it. This results in a fairly sophisticated drive. There usually are meetings with employees and, in most cases, individual contacts are made during the course of the campaign. Despite our support and encouragement, we do

not want to pressure employees into giving fair share or high percentage contributions. Each employee should decide for himself his own degree of support to the United Way. An employee may give at whatever level he decides, or may not give at all, without this action having any effect on his job status or any matter relating to it, such as pay or advancement."

Cycle parking area

QUESTION: When is action going to be taken banning four-wheelers from parking in the cycle area, vehicles parking on the yellow curbs, and back-in parking at Y-12's Bear Creek portal parking lot?

ANSWER: Action is being taken when these violators are detected on periodic surveys. The first violation is brought to the attention of the responsible employee. Subsequent violations are reported to appropriate supervision. In the interest of safety and respect for orderly parking lot procedures, we urge all employees to comply with parking regulations.

next issue ...

The next issue will be dated January 6. The deadline is December 28.

Motorists warned again of Oak Ridge deer hazard

Latest figures from ORNL's Environmental Sciences Division indicate that the number of deer killed on the Oak Ridge reservation highways this year is now up to 26. No personal injuries have been reported to date, although there has been extensive damage to vehicles.

Motorists are urged to watch for deer along area roads—and warned that deer seen standing at the side of the highway may bolt onto the road unexpectedly.



DISTINGUISHED SERVICE AWARD—Roger F. Hibbs, Nuclear Division President, accepts a Distinguished Service Award which was presented by South Carolina State College, Grangeburg, to the Nuclear Division for its recruitment efforts over the past 10 years at the predominantly black college. Pictured with Hibbs are Division personnel who have been active in recruitment at the South Carolina school. From left are Earl J. Nash, Central Employment; Frank E. Gethers, ORGDP; Hibbs; Edwina L. Dunbar, ORGDP; and Emerson L. Wright, ORGDP.

New Y-12 Plant facility recovers nitrate wastes

A new three-stage waste treatment facility constructed at the Oak Ridge Y-12 Plant recovers about 60 percent of the nitrate wastes generated at the installation and uses special bacteria to decompose the remaining nitrates. Initial operation began in September.

The Y-12 Plant annually generates about 2,500,000 pounds of nitrate wastes from chemical processing operations. Previously, such wastes were disposed of in percolation basins in the Plant's waste disposal area.

Although this disposal method complied with all regulations regarding waste disposal when constructed, it no longer meets the current, more stringent regulations. A development program was begun in 1972 to find an efficient and environmentally acceptable method of recovering as much of the nitrate as possible.

The system consists of a three-stage process. The first stage uses a distillation method to recover about 35 percent of the total nitrate in the form of nitric acid which can be reused in the Plant's operations.

Second stage

The second stage, a crystallization process, recovers another 25 percent in the form of aluminum nitrate which is reused.

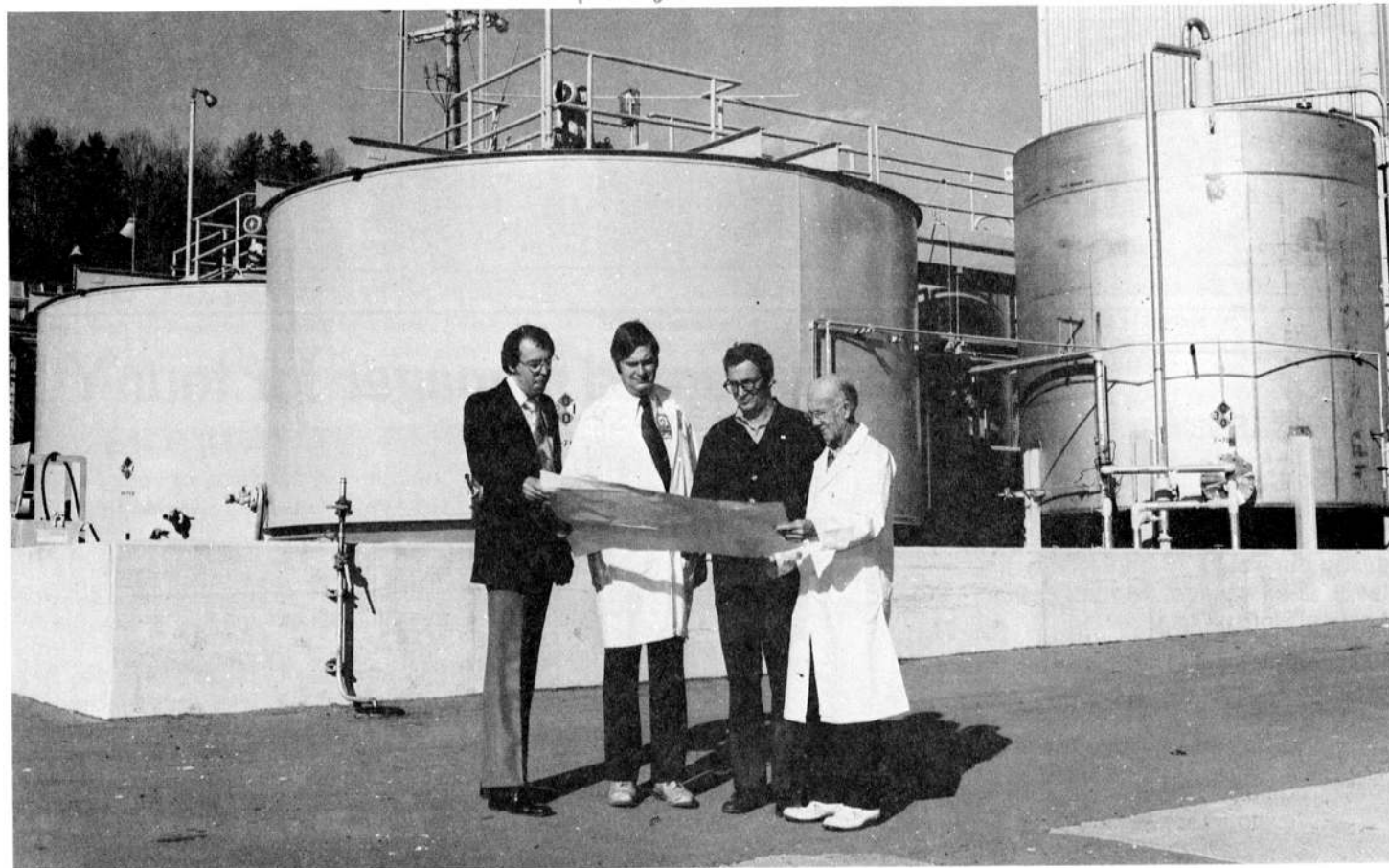
After passing through the first two stages, the remaining nitrate waste is pumped to a 25,000-gallon tank containing special bacteria cultivated in an organic solution containing trace amounts of phosphate and sulfate. In the absence of oxygen, these bacteria tend to cause the chemical decomposition of the nitrate, converting it to innocuous nitrogen and carbon dioxide gases.

Because this is an anaerobic (non-oxygen) process, the tank containing the bacteria is sealed to prevent their exposure to air. A second tank of similar capacity is available as a standby unit.

The new facility, developed at Y-12 through operation of a series of pilot plant experiments, is the latest of several biological engineering systems developed by the Nuclear Division for waste disposal applications. One system employed by Y-12 uses the natural bacteria in soil to dispose of oil and machine coolant wastes. Another system, known as the ANFLOW process and developed at ORNL, uses bacteria to dispose of a portion of liquid sewage waste. A pilot plant demonstrating the ANFLOW process is being operated at the municipal sewage treatment plant for the city of Oak Ridge.

Many involved

Some of the persons who have played key roles in the development of the facility include Forrest E. Clark, E. G. Laggis and Harry C. Francke (retired), Development Division; John W. Strohecker, Engineering; John D. Watkins, Metal Preparation; James C. Nook, Maintenance; Chester W. Francis, ORNL En-



BIODENITRIFICATION FACILITY—The Y-12 Plant has developed a facility to treat nitrate waste generated at the installation. Sixty percent of the nitrate waste is recovered for reuse, while the remainder is decomposed by bacteria. James C. Nook, John D. Watkins, E. G. "Mike" Laggis and Forrest E. Clark, left to right, study a flow chart of the process.

retirements

(Continued from page 2)



Charles E. Harris
Machine Shop, PGDP
22 years service



Hubert A. Sutton
Fabrication and Maintenance, ORGDP
32 years service



Clyde R. Benson
Separation Systems, ORGDP
29 years service



Eugene L. Wooten
Fabrication and Maintenance, ORGDP
31 years service



Devers W. Brannon
Fabrication and Maintenance, ORGDP
31 years service



Charles E. Cross
Security, ORGDP
32 years service



Austin H. Rucker
Fabrication and Maintenance, ORGDP
32 years service



Glenn S. Blackburn
Operations, ORGDP
32 years service



Charles C. Fowlkes
Operations, ORGDP
32 years service



Woodrow W. Johnson
Barrier Manufacturing, ORGDP
31 years service



Marjorie C. Magill
Finance, Materials and Services, ORGDP
28 years service



John S. Magill
Fabrication and Maintenance, ORGDP
31 years service



Allene G. Sills
Accounting, ORGDP
31 years service



William K. Rollins
Fabrication and Maintenance, ORGDP
31 years service



Edward S. Bishop
Fabrication and Maintenance, ORGDP
31 years service



Lester D. Blakeney
Operations, ORGDP
31 years service



Joseph O. Alexander
Operations, ORGDP
31 years service



Fred L. Speers
Barrier Manufacturing, ORGDP
24 years service

(Please see page 5)

Martin new superintendent for Y-12 Development Division



William R. Martin

The appointment of William R. Martin as Director of the Development Division at the Y-12 Plant has been announced by William J. Wilcox, Technical Director.

Martin succeeds Jack Yaggi, whose appointment as General Plant Services Manager for the Oak Ridge Y-12 Plant has been announced.

Martin joins the Nuclear Division's Technical staff after serving as

Manager of the Engineering Materials Section in the Metals and Ceramics Division at the Oak Ridge National Laboratory.

A native of Ohio, he received his bachelor of science degree in metallurgical engineering from the University of Cincinnati and has done graduate work at the University of New Mexico and the University of Tennessee.

Martin joined the Nuclear Division in 1959 after working at the Portsmouth Gaseous Diffusion Plant and the Army's White Sands Missile Range in New Mexico.

In 1968 he received two national American Society for Metals awards for the direction of work in the area of chemical vapor deposition of refractory metals. In October, 1976, he was named a Fellow in the American Society for Metals.

Martin is active in the Metals Property Council and various committees of the American Society for Testing and Materials. He recently was elected to membership on a joint committee on the effect of temperature on the properties of metals.

He and his wife, June, have three sons, Mark, Mike and William. They live at 111 Greystone Drive, Oak Ridge.



Brooks



Fisher



Grooms



Hargrove



Terry

Paducah Plant names five employees to new positions

The Paducah Plant has announced five recent promotions. Gary E. Brooks and George F. Fisher have been named inspectors; Thomas V. Grooms has been promoted to an accountant; and David L. Hargrove and Robert D. Terry have been made inspectors.

Brooks, a native of Paducah, joined Union Carbide earlier this year.

Mrs. Brooks is the former Deborah Lowrey, and they live at 3308 Rucker Ave. They have three children, Kimberly, Matthew and Ryan.

Fisher was born in Carlisle County, Ky., and served in the U.S. Navy before joining Union Carbide in 1976.

He and his wife, the former Fila Z. Hoskins, live at 316 Cheatham Street, Bardwell, Ky. They have three children, Tamera, George and Samuel.

Grooms, a native of Corning, Ohio, attended Ohio State University and served in the U.S. Army before joining Union Carbide 25 years ago. He lives at 3929 Sunset Avenue, Paducah.

Hargrove, a native of Athens, Ala., joined Union Carbide eight years ago. He lives at 929 Cloverdale Road, Paducah.

Terry, a native of Paducah, joined Union Carbide three years ago. He and his wife, the former Cheryl Nance, live at 1017 Elmdale Road, Paducah.

ORNL tells two promotions



Phelps



Renner

Paul S. Phelps and Harry D. Renner have been promoted at ORNL. Phelps, formerly an electrician in Plant and Equipment Division, has been named a planner-estimator; Renner, a steam

power operator in Operations Division before his promotion, has been made a process I supervisor.

Phelps first came to the Nuclear Division in 1967, where he worked a year as an electrician in Plant and Equipment before leaving to do electrical contracting. He returned to the staff here in 1974.

A native of Butler County, Ky., Phelps and his wife, Hazel, live at 1306 Woodlawn Drive, Maryville. They have two daughters, Charlotte Pierce and Carol Phelps, and a granddaughter.

Renner joined the ORNL staff in 1966 as a chemical operator. In 1970 he went to Y-12, working there three years as a process operator before returning to ORNL in 1973.

He is a native of Oak Ridge, where he currently makes his home.

ORNL Credit Union schedules annual meeting

The annual meeting of the ORNL Credit Union has been set for Thursday, January 27, in the Shep Lauter Room of the Oak Ridge Civic Center. Registration will begin at 6:30 p.m., and the meeting is scheduled for 7:30.

Five board members and two credit committee members will be elected. Board member nominees are James K. Baird, Peter P. Holz, Vivian A. Jacobs, C. S. Lissner, James L. Lovvorn, Karl J. Notz and Ben B. Smith. Running for credit committee election are Dvon Brogan, Paul Hill, C. R. Kirkpatrick and Herb E. McCoy.

Cash door prizes will be awarded; entertainment will be by Austinini.

Facility recovers waste

(Continued from page 4)

Environmental Sciences; and Rafael B. Bustamante, consultant from Tennessee Technological University. Project coordinator was John M. Napier, Development Division. Support was also drawn from the ORNL Biology and Chemical Technology divisions. Operation of the new facility is the responsibility of the Metal Preparation Division.

division deaths

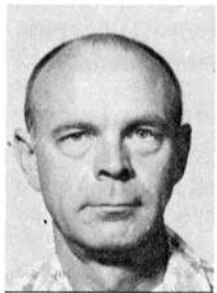
Two ORNL staff members died December 6 in a two-car accident at the intersection of Bethel Valley and Scarboro Roads.



Mrs. Buffington

Killed were Mary Buffington, Finance and Materials Division, and William E. Kinney, Neutron Physics Division. Both had been at ORNL since 1952.

Mrs. Buffington is survived by her husband, Herbert M. Buffington (a guard in ORNL's Laboratory Protection Division), Route 5, Buttermilk Road, Lenoir City; two daughters, Mrs. Cherry Huskey and Mrs. Donna Joyner; a son, Herbert M. Buffington Jr.; four sisters, Mrs. C.M. Estes, Mrs. Vernon Fox, Mrs. P.W. Badenhop and Mrs. J.S. Jones; and two brothers, James Cherry and William S. Cherry.



Mr. Kinney

Funeral services for Mrs. Buffington were held December 9 in the chapel of Highland Memorial Funeral Home, Knoxville, followed by burial in Highland Memorial Cemetery. Mr. Kinney's survivors include his wife, Mrs. Isabell Stephens Kinney, 6723 Ridge Road Lane, Knoxville; a son, Douglas Kinney; and three daughters, Susan, Kathy and Cindy Kinney. Funeral services were held December 8 at Weaver Funeral Home, Knoxville. Burial was in Highland Memorial Park.

Mattie E. Anderson, Y-12's Product Certification Division, died December 13, in the Oak Ridge Hospital. A native of Duffield, Va., she worked at the Holston Ordnance Works and was a graduate of Johnson City Business College. She came to Y-12 in 1945.

Survivors include a sister, Lois Greene and a brother, Robert Anderson.

Miss Anderson lived at 300 Virginia Road, Oak Ridge.

Funeral services were held at the Weatherford Mortuary. Graveside services were later held at Lee Memorial Park, Pennington Gap, Va.

Dr. D.L. Upchurch, Y-12 Medical Department, died at his Wilde Acres, Clinton, home December 14.

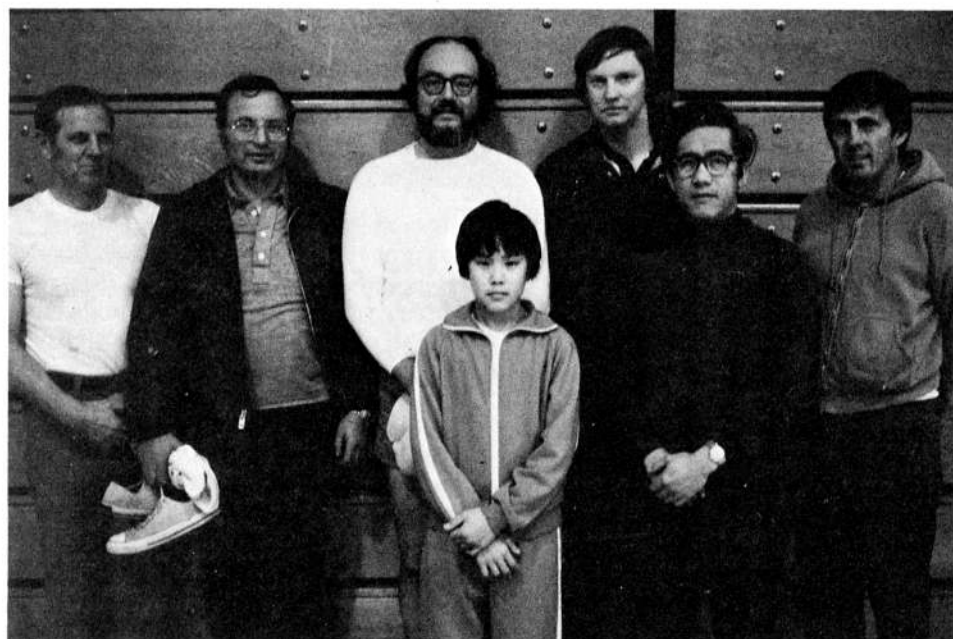
A native of Central City, Ky., he was a graduate of the University of Alabama and received his medical degree at the University of Louisville Medical School. He interned at St. Joseph Hospital, Louisville, and then served in the U.S. Army for two years. He entered general practice in Middlesboro and Pineville, and joined Union Carbide in 1963.



Dr. Upchurch

(Please turn to page 8)

recreationotes



THE POGOS—One of the Nuclear League's outstanding volleyball teams is the Pogós, who boast an 18-won, 6-loss record to hold third place in current standings. From left are Virgil Haynes, Mario Fontana, Dave Hobson, Steve Combs, Ken Liu and Tom Kress. Andy Liu, front row, is a team adviser. Not pictured are John Poston, Dave Bjornstad, John Jones and Tony Wright.

Volleyball leagues ...

Mid-December standings in the three Volleyball Leagues show the Blue Team out front, the Taxi Squad in command, and the Gauss House Gang holding down the third section.

Standings follow:

NUCLEAR LEAGUE

	WON	LOST
Blue Team	20	4
Over-The-Hill Gang	19	5
Pogo's	18	6
Artie's Army	16	8
The Skinks	16	8
Rad-Fizz	16	8
Ball Busters	11	13
Maxwell Demons	11	13
Fed's	5	19
C-Shift Reds	4	20
The Abends	3	18
The Kilos	2	19

ATOMIC LEAGUE

Taxi Squad	20	4
Diggers No. 1	19	8
Diggers No. 2	17	10
Quarks	12	12
Old Men	5	22
Ecomen	5	22

CARBON LEAGUE

Gauss House Gang	17	4
Volares	14	7
Group	12	9
Half A Chance	8	13
Killer Bees	3	21

wanted



ORGDP

JOIN CAR POOL from University of Tennessee area, Knoxville, to Purchasing Division at Townsite, straight day. Reginald Etheridge, plant phone 3-4531, home phone Knoxville 522-1480.

JOIN CAR POOL from Crossville to K-25, straight day. Larry Wyatt, plant phone 3-3341, home phone Crossville 484-6264.

Y-12 PLANT

JOIN CAR POOL from Norwood section, west Knoxville, west of Clinton Highway, to North Portal, straight day. S. T. Benton, plant phone 3-5615, home phone Knoxville 687-9496.

ONE CAR POOL MEMBER from East Village, Oak Ridge, to West Portal, straight day. J. C. Rodgers, home phone Oak Ridge 482-2891.

TWO car pool members from East Drive area, Oak Ridge, to North Portal, straight day. Walter D. Corbett, plant phone 3-7131, home phone Oak Ridge 483-0324.

RIDE from area between Concord and Knoxville, to North Portal, straight day. Win G. Jordan, plant phone 3-7767.

ORNL

RIDE from University of Tennessee area, Knoxville, to East Portal, 8 a.m. shift. F. J. Hartmann, plant phone 3-1835.

RIDE or will join car pool from West Knoxville, Walker Springs area, to East Portal, straight day. Need ride beginning January 4 for a 10-week period. Call 3-5345 and ask for Mary Scott.



AWARD WINNERS—Keith Bryant, recreation director, awards prizes in the fishing rodeo recently closed at Paducah, from left, Jack Hulett, Frank L. Smith, James D. Turner and Hardy I. Pottinger.

Paducah fishing ...

November closed out the most successful fishing competition in the Paducah Plant's history. Winners in the six species race were awarded prizes to take on their next fishing exposition, such as life vest, fire extinguishers and flotation pads.

A popular feature of the event was the junior rodeo that included Carbide kids from two through 12 years of age. Sleeping bags were awarded the winners.

Physical fitness ...

Union Carbide will sponsor physical fitness classes beginning January 3. Times are Monday, from 7 to 8 p.m. and 8:10 to 9:15; and Wednesday, 6:30 to 7:30 and 7:45 to 8:45 p.m.

Additional information may be obtained by calling Recreation, extension 3-7833.

The classes will be held in the Norwood Junior High School gym.

SIGNS OF HEATING PROBLEMS

Is your home heated efficiently during the winter months, or are you losing heat—and money—to the outdoors? The U.S. Office of Economic Opportunity offers this checklist:

— Are your heating bills higher than your neighbors' bill?

— Can you see heat rippling up your house on a cold day? This means that heat is escaping through the roof.

— Does your house always seem cold and hard to heat on a windy winter day?

— Even if you get a lot of heat from your heater, are some parts of the house very cold anyway?

— Are your floors cold, and are your feet cold in the winter?

— Do most of your windows fog up with water or frost in the winter?

If you answered "yes" to two or more of these questions, you've got energy troubles! Proper sealing and insulation can save on heating bills and keep you warmer through the winter.

One of the joys of Christmas ...



YEAR-LONG JOB—Virginia Newby, Y-12 Dispatching Department, is shown with part of the 70 dolls she has given face-lifts and decorated clothing. Newby says she grabbed them at flea markets, from neighbors whose kids were tired of them, and even a few from the junkyard. Together, with the help of a neighbor friend, Bertie Madewell, she fashioned the clothes, and cleaned up the dolls. They recently gave them to the Holiday Bureau in Oak Ridge, for distribution to needy children in the area of Christmas. "It was just something I wanted to do," she explained.

Nuclear Division News

UNION CARBIDE CORPORATION
NUCLEAR DIVISION
Office
Post Office Box Y
Oak Ridge, Tenn. 37830

EDITOR

James A. Young, Ext. 3-7100

ASSOCIATE EDITOR

Carol Grametbauer, Ext. 3-6266

ORGDP

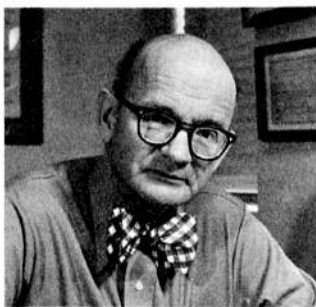
Doug Carter, Ext. 3-3434

PADUCAH

Keith Bryant, Bell 369



Member,
INTERNATIONAL
ASSOCIATION
OF BUSINESS
COMMUNICATORS



Holiday Spirits

by T. A. Lincoln, M.D.

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, Y-12, or call the news editor in your plant, and give him or her your question on the telephone.)

The Christmas and New Year's holidays are times for cocktail parties, celebrations and general joviality. Hopefully, celebrants will find the following "gems" from the recent medical literature of sobering influence in preparing themselves for the "imbibing season."

- Forcing fluids for a hangover makes no sense. The body is over-hydrated, even though the mouth may feel dry as the inside of a garbage can on a hot summer day! If medication is needed, a carbonic anhydrase inhibitor diuretic, such as acetazolamide, will release excess fluids. (It will require a prescription from your doctor, however!)

- Reserpine (a medicine sometimes used, usually in combination with other drugs, for the treatment of high blood pressure) and alcohol can be a deadly combination. Patients taking reserpine should use great care when consuming alcoholic beverages.

- If you use soda or any carbonated beverage as a mix, your blood alcohol will rise faster than when you use water as a mix.

- The symptoms of acute intoxication depend not only on the blood alcohol concentration, but on how rapidly it got there. If you drink "straight" or undiluted drinks on an empty stomach, your blood alcohol may rise rapidly. When you use diluted drinks and have food in your stomach the rise will be much slower. However, "titrating" consumption to a given effect is much more difficult with food. Once the effect is reached, there is no way to turn off continuing slow absorption from what you have already drunk.

- Patients with coronary heart disease with angina pectoris get chest pain with less exertion while drinking than when abstaining. Alcohol does not dilate coronary arteries.

- A person weighing 154 pounds will metabolize (burn up) about 7 to 10 grams of alcohol per hour, which is the equivalent of two-thirds of an ounce of 90 proof spirits, or 8 to 12 ounces of beer.

- Anyone with a blood alcohol of 100 milligrams percent (100 milligrams per 100 milliliters blood) or over is considered "under the influence." Four ounces of whiskey or 5.5 ounces of martini cocktail on an empty stomach will usually produce a blood

alcohol 67 to 92 milligrams percent; after a mixed meal, 30 to 53 milligrams percent.

- Most people lose track of how many drinks they have had after the third one.

- A non-addicted alcohol consumer should have no difficulty abstaining for 30 days. If you are worried, try it.

- Alcohol frequently releases repressed aggression and hostility. If you don't believe it, abstain at your next party and listen for the sarcastic and unpleasant things people will say about their colleagues, competitors and employers, and note that no one pays much attention.

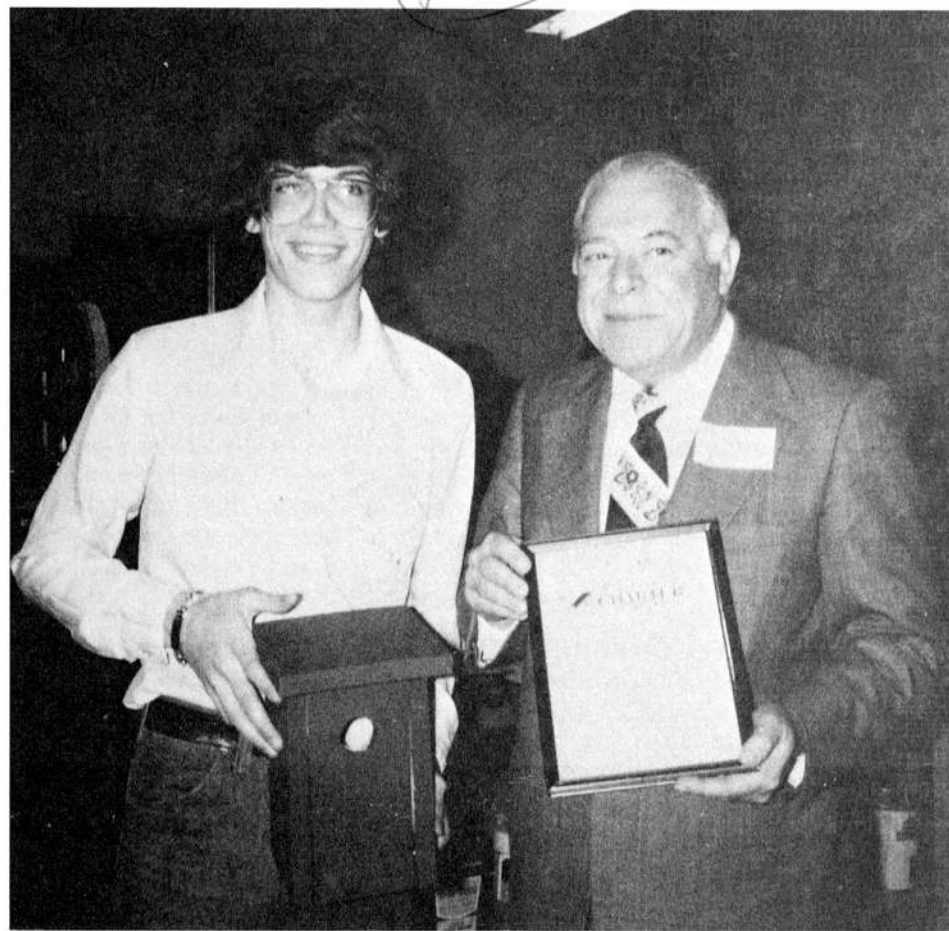
- Alcoholics drink fast. They need the effect quickly. To avoid gulping drinks at the party, they frequently get a head start at home.

- If you need a drink to be social, that's not social drinking. People not addicted to alcohol should have no difficulty socializing without alcohol. They use it in moderation to relieve inhibitions and facilitate social interaction, but they definitely don't require it.

- Ninety-five percent of the elimination of alcohol is by oxidation in the liver. Fructose increases the rate of this removal by about 25 percent. Unfortunately, when given by mouth, it causes gastrointestinal upset, elevation of uric acid with the possibility of causing an episode of gout and an osmotic diuresis (increased excretion of urine). If a person has been in an accident and it is important to learn whether the clouded senses are due to alcohol or to a head injury, 10 percent fructose can be given intravenously to rapidly sober a person up and help with a diagnosis. (Don't take your drunk son or daughter to the Emergency Room unless there is an urgent diagnostic need. If you do, they will probably send your errant offspring home to sober up in eight to ten hours using natural metabolic processes.)

- It is not the alcohol which is so toxic to the liver. It is acetaldehyde, a metabolic breakdown product, which causes the difficulty. The metabolism of alcohol can be blocked with pyrazole and little toxicity is seen.

- Indians do not have a racial vulnerability to "firewater." The metabolism of alcohol was in-



CHARTER PRESENTED—Jack M. Case, Y-12 Plant Manager, presents the charter for Ridge Wood Originals, an adjunct of Junior Achievement, Inc. Accepting the charter is Allen Hannaford, president of the local chapter which is sponsored by the Nuclear Division.

Nuclear Division to sponsor local Junior Achievement

It's called "Junior Achievement," and it's just that.

A charter to operate the group in the Oak Ridge area was recently filed and presented by Jack M. Case, Y-12 Plant Manager, to Allen Hannaford, a senior at Oak Ridge High School. Allen is the son of Bruce Hannaford, ORNL. He will be president of Ridge Wood Originals, the new branch of J.A.

The current project is the manufacture and sale of bluebird houses. And the chapter is looking for more projects.

vestigated in 30 Indians and 30 whites and it was virtually identical.

- Alcohol is initially a depressant, but after a few hours it is a stimulant. You may feel sleepy after one or two hours, but when you wake up during the night and can't understand why, now you know!

- Alcoholic liver disease is associated with a failure in metabolism of caffeine. Toxic buildup can occur just from drinking coffee (112 milligrams per cup). One patient was reported who had seizures because of a toxic caffeine buildup.

- Individuals addicted to alcohol usually smoke heavily and drink much coffee. The converse is not necessarily so!

- You abstainers or moderate drinkers are getting "ripped off" by the approximately nine million alcohol abusers in the USA. They cost this country 30 billion dollars in lost production, health care, motor vehicle accidents and fire losses, crime and social destruction. Guess who picks up the tab?

Merry Christmas—have fun naturally, not pharmaceutically!

Junior Achievement gives youth an economic education in how our industrial system works, complete with the sale of stocks, the distribution of profits and managerial experience. They learn facts of organization, finance, management, manufacturing, public relations, marketing, recording and auditing, and liquidation. Such things as inventory control, incentives, sales training, budgeting, capitalization, compensation, mergers, net worth, gross profit, franchise, and other terms familiar to anyone in business, become everyday words and tools of junior achievers.

Serving as advisors to the group from Union Carbide are Gary Riser, manager of General Accounting; Vern Gritzner, Y-12's Metal Preparation Division; and Fritz McDuffie, ORNL's Information Division. Riser will advise the group on organization and general administration; Gritzner will steer them in production; and McDuffie will advise them on marketing their products.

Another group has been chartered at Oak Ridge High School, sponsored by the Oak Ridge Technical Enterprises (ORTEC).

Junior Achievement is looking for new projects to work on and welcomes suggestions. They have launched the bluebird houses as their first enterprise. Information on the purchasing of the house may be obtained from Austin Burns, 109 Willow Lane, Oak Ridge (phone 483-1084).

There are J.A. chapters all over the country and Canada, with more than 200,000 students being educated into the mainstream of America's industry to give them a firsthand look at the advantages of our form of government and economy over the other choices.

Ration cards bring memories of 40's

By Carol A. Grametbauer

Thirty-two years ago last month, a rookie fireman at the Clinton Laboratories (now ORNL) slogged across mud-filled roads to pick up his supplies of wartime ration tickets.

A few weeks ago, ORNL's Jim Fine, preparing to retire this month after 32 years in fire protection in the Laboratory Protection Division, shuffled through some old papers while looking for an insurance policy and discovered a number of "leftovers" from those rationing days.

Included in his "find" were a cigarette ration card captioned "Monsanto Chemical Company—Clinton Laboratories;" a mileage ration identification folder; and a sheet of basic mileage ration coupons, with six still unused.

'Mostly off-brands'

"Cigarettes were hard to get in those days," Fine said, reminiscing in an interview last week. "We were only allowed a certain number of packs per week—we picked them up at the old cafeteria. And they were mostly off-brands at that," he added.

The mileage ration coupons, as many employees remember, were good for five gallons each. Fine was issued more than the usual amount, since he had to drive to work each day from the Inskip area of Knoxville (car pools were out, since he worked shifts). The old identification folder lists his car as a '34 Pontiac.

The name "Clinton Laboratories" was used for what is now ORNL from its beginning in 1943 until 1947, when it was changed to "Clinton National Laboratory." At that time the facility was operated by Monsanto Chemical Company, as the cigarette card states. In 1948, with the institution of the Atomic Energy Commission, Carbide and Carbon Chemicals Company (forerunner of today's Union Carbide Corporation) took over its operation, and the name became Oak Ridge National Laboratory.

30 years as dispatcher

Fine came to Clinton Laboratories in 1944, working first as a fireman. "My uncle was a fireman, and I guess I'd wanted to be one too, ever since I was a kid," he said. "When I heard about an opening, I applied, and was hired about three months later." After about a year he became a driver, and in 1946 a fire equipment dispatcher, a job he has been doing now for 30 years.

A lot has changed around ORNL since those early days, Fine said. There were actually more men working in fire protection then than now, partly because there were more people around during the construction phases and partly because today's smoke detection devices and sprinkler systems make a large force unnecessary. Fire alarm boxes numbered about 12, compared to more than 100 now. And for the men driving the firetrucks, it was a lot har-



Jim Fine "on the job" at ORNL's fire headquarters.

der to get around: "There wasn't a sidewalk anywhere, or a paved road—even Bethel Valley was still only graveled. We all had to wear overshoes to keep our shoes looking like anything."

Did he suspect in 1944 what Clinton Laboratories' mission was in those days? "We all knew it was something real important to the war effort," Fine said. "But very few actually knew what it was . . . we were taught in school that you couldn't split the atom!"

Fine's 32 years with ORNL will come to an end next week when he takes early retirement, but he expects to keep busy just the same in the woodworking shop he has set up behind his home on Greer Road in Knoxville. And with oil prices continuing to rise, he might want to hang on to those gas rationing tickets—they could just become fashionable again one of these days!

MONSANTO CHEMICAL COMPANY CLINTON LABORATORIES

CIGARETTE RATION CARD

11 413-14-1711 FI
2967 JAMES I. FINE

Ration Points	1	2	3	4	5	6	7	8	9	10	11	12	13
	14	15	16	17	18	19	20	21	22	23	24	25	26

RATION RULES

1. Only ONE Cigarette Ration Card per employee is authorized and this card is **not transferable**.
2. This card is effective for 26 weeks beginning July 2, 1945, and ending Dec. 30, 1945.
3. Ration point numbers refer to separate weeks (No. 1 first week, 2 second week, etc.).
4. Only one point per week is allowed and is valid **only** during the applicable week.
5. Ration Card **MUST** be presented in person.

Fine's cigarette ration card from 1945.

division deaths

(Continued from page 5)

Survivors include his wife, Christine Boyland Upchurch; two daughters, Carolyn White and Patricia Lindon; two sons, Phillip and John Upchurch; his mother, Mrs. Pearl Upchurch; and three grandchildren.

Funeral services were held at the Oak Ridge Memorial Park, at the graveside.

The family has requested that any memorials be in the form of gifts to the American Heart Association.

Floyd R. Wells, a laborer in ORNL's Plant and Equipment Division, died November 30 in East Tennessee Baptist Hospital, Knoxville. He had been a Nuclear Division employee since 1950.



Mr. Wells' survivors include his wife, Almeta Hawkins Wells of Route 3, Sweetwater; three sons, Floyd Wells Jr., Pvt. E2 Larry Wells and Bobby Wells; three brothers, William, Jesse and Henry Wells; and three sisters, Cornelia Wells, Mrs. Esther Thompson and Mrs. Addie Crawford.

ORNL joins minority education consortium

ORNL is one of nine laboratories and companies which will be participating in a collaborative effort with 19 engineering colleges in the National Consortium for Graduate Degrees for Minorities in Engineering, Inc.

The Consortium is based at the University of Notre Dame, which has received a \$450,000 grant from the Alfred P. Sloan Foundation to support its administrative and student support costs.

The Consortium's goal is to increase by 100 the annual number of minority students receiving a master's degree in engineering. It will offer financial support and practical laboratory experience to minority students—specifically black Americans, Mexican Americans, Puerto Ricans and American Indians—while they pursue the graduate degree.

Funeral services were held December 3 at Mt. Bethel Baptist Church in Sweetwater, followed by burial in North Point Cemetery.

